

AMENDMENTS TO THE CLAIMS

Please amend the claims as indicated below.

1. (Currently Amended) A process for producing powder coating materials using the apparatus of claim 10, comprising the following steps:

- preparing a polyaddition resin melt using a Taylor reactor (1) at a temperature above the melting temperature of the polyaddition resin;
- supplying the polyaddition resin melt to a homogenizing means (16);
- adding a crosslinker to the homogenizing means (16) to prepare a components melt;
- cooling the components melt on a cooling means (20) for solidification to the end product;
- supplying the end product to a pulverizing means P.

2. (Original) The process as claimed in claim 1, wherein the polyaddition resin melt is devolatilized before its entry into the homogenization means (16).

3. (Previously Presented) The process of claim 1, wherein the crosslinker is added in powder or liquid melt form.

4. (Previously Presented) The process of claim 1, wherein the crosslinker is supplied in parallel with the polyaddition resin melt to the homogenizing means (16).

5. (Previously Presented) The process of claim 1, wherein the crosslinker is supplied to the polyaddition resin melt via a side strand of the homogenizing means.

6. (Previously Presented) The process of claim 1 wherein homogenization takes place statically.

7. (Previously Presented) The process of claim 1, wherein homogenization takes place dynamically.

8. (Previously Presented) The process of claim 1, wherein additives are supplied to at least one of the crosslinker and the polyaddition resin melt.

9. (Previously Presented) The process of claim 1, wherein the polyaddition resins are selected from the group consisting of polyurethanes, polyepoxides and addition (co)polymers of olefinically unsaturated monomers.

10. (Previously Presented) Apparatus for implementing a process as claimed in claim 1, comprising a Taylor reactor (1) with an inlet region (8) for supplying the process materials to prepare a polyaddition resin melt and having an outlet (10) for delivering the polyaddition resin melt,

further comprising a homogenizing means (16) which comprises at least one first and second inlets for supplying the polyaddition resin melt delivered by the Taylor reactor, and the crosslinker, and also comprising an outlet via which a product is delivered by the homogenizing means (16).

11. (Previously Presented) The apparatus of claim 10, wherein a devolatilizing means (13) is interposed in the supply line from the Taylor reactor (1) to the homogenizing means (16).

12. (Previously Presented) The apparatus of claim 11, wherein the homogenizing means (16) is an extruder having at least two feed openings.

13. (Previously Presented) The apparatus of claim 10, wherein the homogenizing means (16) is a devolatilizing extruder having at least two feed openings.

14. (Previously Presented) The apparatus of claim 11, wherein the homogenizing means (16) is a static mixer.

15. (Previously Presented) The apparatus , of claim 11 wherein the devolatilizing means comprises a letdown vessel.

16. (Previously Presented) The apparatus of claim 15, further comprising a pressure maintenance valve (11) upstream of the letdown vessel (13).

17. (Previously Presented) The apparatus of claim 10, wherein means for adding at least one additive to at least one of the Taylor reactor (1) and the homogenizing means (16) are provided.

18. (Previously Presented) The apparatus of claim 10, wherein the Taylor reactor (1) has a toroidal reaction volume (2) which opens to an outlet region (9).

19. (Previously Presented) The apparatus of claim 18, wherein the Taylor reactor (1) comprises a rotor (4) which is mounted rotatably at one of its end faces.

20. (Previously Presented) The apparatus of claim 10, wherein the inlet range (8) is provided in the narrowest region of the reaction volume (2) of the Taylor reactor (1).

21. (Previously Presented) The apparatus of claim 10, wherein the outlet region (9) is provided above the unmounted end (4.2) of the rotor (4).

22. (Previously Presented) The apparatus of claim 10, wherein at least one of the reactor housing, reactor wall (3) and rotor (4) is or are configured in such a way that the cross section of the toroidal reaction volume (2) from the inlet region (8) to the outlet region (9) increases initially but at least over part of the length of the rotor (4) and the cross-sectional increase does not grow larger.

23. (Previously Presented) The apparatus of claim 21, wherein the outlet region (9) broadens or stays the same beyond the reaction volume (2) in the direction of flow traversal and subsequently tapers to a product outlet (10).

24. (Previously Presented) The apparatus of claim 10, wherein the greatest diameter of the product outlet (10) follows the outlet region (9) and said product outlet (10) tapers in the direction of flow traversal.